July 2014

Correspondence to St. Johns Spring Co.

Morgan Construction Company

520

Furnace

Carded

LB #9

Nov. 11/95.

enclosing circ. & letter to sell furnace to any mill

St. Johns Spring Co.
St. Johns, Mich.

Gentlemen:-

We beg to acknowledge receipt of your favor of the 8th. regarding heating furnaces. We are at present very busy with this class and would be very glad to put in our furnaces for you, believing that we have beyond question the most economical and cheapest furnace on the market for heating billets. We are putting in furnaces now for some of the leading concerns in the country, some of whom are mentioned below.

	Kind of Mill	Size of Billets.	Length of Billets.
Midland Steel Co.	20" Mill	4" x 7"	3 to 6 ft. long.
American Wire Co.	Morgan Rod	4 x 4	3 to 4 "
Oliver Iron & Steel Co.	" Merchant	4 x 4	3 to 7 "
Junction Iron & Steel Co.	"	4 x 4	3 to 7 " (2d. order)
Pencoyd Iron Works.	12" Mill	4 x 6	2 to 6 "

Lately put in operation.

Jones & Laughlins,	Morgan Merchant	4 x 4"	billets	2 to 5 ft. long.
Union Iron & Steel Co.	" Hoop	1,1/4"	"	30 ft. long.
Cambria Iron Co.	10" Mill	3" x 3"	"	2 to 6
Junction Iron & Steel Co.	20" Mill	4" x 7"	"	4 to 7

Also furnaces of same type for four copper rod mills. Four of the above are to work double rows of billets and will have a capacity of from 40 to 80 tons per turn of ten hours.

Our furnaces without a single exception have given complete satisfaction, and the small amount of fuel used and reduction in loss from scale have been astonishingly low. In fact we have received figures from owners of two of the last furnaces started which we scarcely dare credit, and hesitate to repeat until they have been confirmed by longer records.

Some of the advantages of our furnaces over other existing types are, simplicity of design, low cost of furnace, ease and cheapness of operation, small amount of fuel required, reduction of furnace waste. All billets receive uniform treatment. Metal when cold is placed in coal end of furnace and gradually advanced toward the hottest portion, this last being of great importance in heating steel, especially steel of high carbon. We have records extending over long periods of the performance of furnaces of this type, which show a fuel consumption of less than 300 lbs. of coal per ton of billets heated.

We have just heard through one of our representatives of one of these furnaces in New Jersey where they have been using but 170 lbs. of coal per ton of metal heated, and this with some of the conditions quite unfavorable to the best economy. The scale loss as usually determined, namely by comparing weight of billets with weight of finished product plus scrap, varies very largely with the type of mill, as well as kind of furnace used. With our furnaces and a good type of Continuous or Belgian mill the scale loss should not be over from 2 to 3%. As to saving in operating labor would say that we are now under contract to replace two Siemens

works with any mill

(2)
furnaces with one Morgan furnace and will effect a saving of the wages of three men, over the force required at present.

We note that you contemplate the use of crude oil for fuel and in this connection would say that several of our furnaces are equipped for this kind of fuel, but from the results obtained we are confident that the use of a good gas coal in a gas producer will give better results and save the owners considerable money in the course of a year. We have recently put in a coal gas fired furnace for a party who was using oil but was absolutely compelled to abandon its use on account of the poor quality of oil received and the much increased cost of the same.

We have been in correspondence with one of the large iron and steel wire producers in England in regard to furnaces of about the capacity which you mention and they became so much interested that on receipt of our last letter, one of the firm took first steamer for this country, and we expect to close with them today. We would like to make you a price on furnaces, but must know about the kind and size of billets, maximum and minimum lengths, which you will use, before doing so. We cannot furnish plans of any sort until under contract to erect the furnaces.

Yours very truly,